

Challenges Faced by Small-Scale Farmers in Rural Agricultural Marketing: A Case Study in India

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ABSTRACT

Agriculture serves as the primary means of subsistence for the great majority of people living in rural areas of developing countries like India. The agriculture industry was a major pillar of economic growth and stability both before and after the oil boom that occurred in the late 1950s. As a result of the fact that domestic production satisfied the large majority of the demand for agricultural products, it was not necessary to spend valuable foreign cash on the purchase of these things. In international organizations that deal with topics such as food safety, biodiversity, innovation, intellectual property protection, trade, and sustainable development, small-scale farmers have a disproportionately low level of representation. As a result, the objective of this research is to investigate the challenges that are faced by small-scale farmers who are located in rural areas while they are attempting to sell their produce. For the purpose of the study, a descriptive methodology and certain fundamental random sampling procedures were utilized, and fifty (50) small-scale farmers were chosen at random to participate. The researchers employed a questionnaire that did not include any open-ended questions so that they could get information from the subjects of the study. In order to make sense of the data that was gathered, conventional statistical methods such as frequency, percentage, and mean were applied. According to the research, one of the most significant obstacles that stands in the way of the success of female business owners in the marketing field is their lack of access to various financing resources. After this comes problems with transit, and after that comes a lack of functionality in the market's infrastructure. The findings of the research indicated that there was an inadequate quantity of data on agricultural marketing in the region that was under investigation. Farmers need to be knowledgeable about a variety of various aspects of agricultural marketing, such as where they can acquire financing, how to keep their commodities fresh, how to package them, and how the market is functioning. According to the findings of the study, governments had to establish transparent criteria for the sale of agricultural products in order to shield farmers from being taken advantage of or suffering financial losses. This would serve this purpose. In prosperous nations, there is typically a system of crop insurance in place to ensure that farmers will make at least some money off of their harvests. Infrastructure, which includes roads, communication networks, and electricity sources, particularly in underserved areas and rural towns, requires significant financial investment from national governments in order to be upgraded and expanded.

Keywords: Agriculture; Small scale; Farmers; Marketing; Rural agricultural marketing; Products.

1. Introduction

Agriculture, and more specifically crop cultivation, provides the vast majority of the poor in many developing nations with the majority of their daily calories. A substantial number of the poor in many developing countries live in rural areas. The agriculturists in question face a number of challenges, such as swings in pricing and the weather, as well as seasonal shifts and an availability of resources. In addition to this, they frequently reside in areas where it is challenging to obtain banking or other forms of financial services [1]. The majority of the agricultural output that is made by small-scale farmers ultimately goes to waste after production since there are not enough resources and distribution channels available. These issues reduce the benefits that small-scale farmers receive from engaging in formal or high-value marketplaces, which prevents them from taking full use of the opportunities that are currently accessible to them. In recent years there has been an expansion in the corpus of literature that focuses on marketing agricultural products [2]. The majority of the studies focus on analyzing the challenges, potential solutions, and recent advancements in agricultural marketing, in addition to analyzing the actions taken by the government in this field.

The process of marketing agricultural products begins with production planning on the farm, with the goal of satisfying projected demand [3]. This is the first phase in the process. Marketing data and market prices should be

made more easily accessible to farmers [4]. This would be to the farmers' benefit. They provide the farmers with knowledge that they can use to make educated decisions, which in turn helps the farmers prepare for planting. In addition, these technologies assist farmers in the management of their surplus produce by guiding them through the steps of the sales process. The retail industry is unable to modify pricing in response to shifts in supply and demand because it does not have access to sufficient marketing data [5].

Because they lack access to marketing data, merchants are unable to modify pricing to account for shifts in supply and demand [6]. Effective marketing of a farm's wares is one of the most essential things that can contribute to the company's sustained financial health over the long term. Examples of marketing constraints or challenges include things like an inability to use and understand market data, a lack of access to reliable and valuable markets, high transaction costs, a lack of storage facilities, poor product quality, a lack of education among small-scale farmers, a deficiency in agricultural extension services, and a lack of financial support [7].

Many people believe that agriculture is the most important part of India's economy, and there is evidence from the country's past that suggests this sector has a significant amount of untapped potential for even more economic expansion. Some would argue that the agricultural sector is more vital overall, despite the fact that the oil industry has been a driving force in the Indian economy for the past three decades [8]. Marketing agricultural products is critical to the continued prosperity of a farm over the long run.

Unfortunately, despite the significance of agricultural produce marketing within the context of agricultural development, it has only gotten a token amount of attention from various governmental entities [9]. A few examples of marketing constraints or challenges include the inability to access or utilize market information, limited access to reliable and high-value markets, high transaction costs, geographic distance from markets, poor product quality, inadequate storage facilities, low levels of education among small-scale farmers, insufficient agricultural extension services, insufficient financial support, insufficient property rights, and insufficient product differentiation [10].

It is essential to ensure that small-scale farmers have access to the benefits of agricultural output that they are integrated into the market and educated about the dynamics of the market, such as volatility, demand, and supply. These concepts serve as the bedrock upon which the economy is built [11]. The marketing of food is an area of agricultural growth that is frequently disregarded despite its crucial importance. The author made the remark that government initiatives typically center on increasing food production while paying little to no attention, if any attention at all, to the distribution of that food and its possible implications on enhancing productivity [12]. As a result of the majority of the farmers and growers in the area of the research depending on rain-fed agriculture for the production of their tropical vegetables, the majority of the harvesting and selling of leafy greens takes place during the months in which there is an abundance of rainfall. On the other hand, vegetables that are grown during the dry season bring in a noticeably higher price [13].

The cultivation of crops and the rearing of livestock on a relatively small plot of land using tried-and-true, low-cost methods rather than cutting-edge gear is the definition of what is referred to as agriculture on a small scale. The question of what constitutes a large farm is one that is still up for discussion. On the other hand, one may make the case that family farms, traditional lands, and smallholdings on the outskirts of urban zones are all examples that fall

under this category [14]. The great majority of periodic marketplaces found in rural communities are supported by conventional agricultural marketing procedures. As a result of these systems, a huge number of people are able to supply essential marketing services such as assembly, storage, transportation, and bulk breakdown [15]. The production structure, which is defined by a wide dispersion of small-scale farmers who each contribute relatively minor amounts to the market, is a crucial factor in the strategy, which relies heavily on the production structure.

Even though farming on a smaller scale is extremely important, it is unfortunately becoming less common for a number of reasons. People are losing interest in farming, resources and expertise are in limited supply, government policies are not matched to local conditions, and people are turning to non-agricultural forms of support such as jobs and benefits [16].

In addition, there is a shortage of resources and knowledge in the agricultural sector. Because agricultural technology institutions are not given sufficient attention within the agrarian agenda, they do not have a significant impact within the agricultural sector. This is another issue that has to be addressed. A time-honored custom calls for farmers to take an active role in the sale of their very own goods. The majority of persons who market agricultural products in India are farmers; the size of this group is greater than the sum of the populations of those who engage in artisanal or subsistence farming or who work for the government [17]. The majority of people who work the land in rural parts of Tamil Nadu get their income from the sale of products produced on their farms. People make their living by cultivating and selling a variety of agricultural products, including rice, cassava, maize, and vegetables, amongst other things.

The primary objective of this study is to investigate the challenges confronted by the Government of Tamil Nadu in its efforts to market agricultural products. The following are some of the main reasons for carrying out this research:

- (i) To classify the micro-agricultural distributors according to their socioeconomic status and demographic makeup.
- (ii) The second goal is to investigate the different kinds of fruit and vegetables that are sold at the stores in the area.

We conducted a study of small-scale agricultural marketers in order to (iii) find out what they need to know about marketing their products in order to be successful. recognizing the challenges that smaller-scale agriculture marketers face in the industry of marketing is the fourth objective.

2. Literature Review

The research was carried out in a region that can be considered to be under the jurisdiction of the government of Tamil Nadu. According to the National Population Commissions, the state of Tamil Nadu has a total land area of 130,058 square kilometers and a total population of 621,969 people [19]. A significant portion of the populace in this area derives the majority of their income from agricultural activities. In addition, some individuals decide to pursue non-standard lines of work such as the retail sector, the teaching profession, the public sector, or the handicraft industry. The territory governed by the Tamil Nadu government is enclosed by the Indian Ocean to the south, Kerala to the west, the Bay of Bengal to the east, and Andhra Pradesh to the north. Participants from all of the central government's small-scale farmers in Tamil Nadu are included in the research. The Market Committees are currently responsible for 277 Regulated Markets, 108 Rural Godowns, and 108 Grading Centres between them [20]. The scope of the research was restricted to looking at small-scale marketers who worked for the Tamil Nadu

government as a result of time and funding constraints. Researchers used a method of random selection to choose fifty small-scale farmers whose primary source of revenue is marketing. These farmers' primary source of income is marketing. Calculations of percentages, frequency tabulations, and mean statistical analyses were performed on the data collected from the participants once they were acquired. The marketing of agricultural produce is crucial, particularly for smallholder farmers, in order to fulfill the larger goals of food security, poverty reduction, and sustainable agriculture. These goals are all intertwined and cannot be achieved without each other [21]. Researchers have identified a number of obstacles that prevent small-scale farmers from participating in market activities. These include a lack of proper infrastructure, a significant distance from markets, restricted access to transportation, the involvement of intermediaries, and insufficient market information [22]. The strategic plan for Vision 2030 identifies agriculture as a crucial component in its goal of sustainable economic growth and improvements in the quality of life for rural communities that have historically been left behind. This recognition comes as part of Vision 2030's commitment to improving the lives of those who live in rural areas. On the other hand, the agricultural industry is confronted with a myriad of issues on a global, regional, and national scale, which calls for coordinated response [23]. When we talk about agricultural development, we are referring to a well-planned and methodical strategy that aims to change an agricultural sector that is now dependent on subsistence farming, is economically disadvantaged, has dense populations, and is technologically inadequate into a modern industry. Agriculture is said to be growing when there is sufficient food for the populace, sufficient raw materials for industrial processes, and sufficient income for farmers to support themselves. These are all common definitions of agricultural growth [24]. Expanding the agriculture sector in a cash-based economy can lead to a rise in the quantity of items available for export while also bringing about an improvement in the quality of these various commodities. This helps us go closer to achieving our objective of generating sufficient funds in a foreign currency. The viability of agriculture, as well as food security and the reduction of poverty, with a particular emphasis placed on small-scale farmers in rural regions, are all crucially dependent on the efficiency of marketing.

3. Materials and Methods

It is necessary to conduct research projects with the goal of gaining an understanding of the specific challenges that small-scale farmers face when it comes to the marketing of rural agricultural products. The means by which you will be able to conquer the challenges are described in more detail below.

Research techniques such as questionnaires and surveys are frequently utilized in a number of academic subjects. There are a variety of tools that can be used to elicit responses from individuals or groups, such as information, views, and so on. In order to obtain information from small farms, you can either create and distribute questionnaires or conduct surveys. Utilizing this method makes it more simpler to collect data regarding the marketing strategies, obstacles, and preferences of the target audience. Make certain that the questions do not leave any space for interpretation and that they are presented in an objective manner. Interview for a job An in-depth look at how things are done In the beginning... It is normal practice to conduct interviews with prospective applicants or employees in order to gather additional information about them and to assess their capabilities. Develop strategies for carrying out in-depth interviews with small farmers. Through these interviews, it may be possible to gain a deeper comprehension of the experiences of individuals and the difficulties they've encountered.

Acquiring secondary data from a wide variety of sources, including government papers, academic articles, and non-governmental organizations (NGOs), is necessary in order to have a complete understanding of the agricultural background of the region. This involves having knowledge of agricultural laws and policies, the current conditions of the market, and the long-term track records of various agricultural techniques. Data and Maps Relating to Geography: Utilizing maps is a great way to obtain understanding of the geographical context of the subject matter under investigation. We are able to get a picture of the distribution of farms, marketplaces, and other types of infrastructure across the region by using data from a Geographic Information System (GIS).

In order to make sure that interviews conducted for research are recorded accurately, digital recording devices are required. Researchers are able to collect every tidbit of information that is discussed during interviews thanks to technological advancements in audio and video recording. In order to get a more in-depth look at the information that was acquired, the interviews can be videotaped and analyzed at a later time.

The next section provides specific information regarding the methods that were utilized to compile a list of the issues that are faced by farmers in rural areas.

Taking a Sample: Find the most effective method for selecting a sample of small-scale farmers that can be used for statistical analysis. The selection of sampling methods ought to be guided by the objectives of the research and the resources at researchers' disposal. These methods include, among others, random sampling, stratified sampling, and purposive sampling.

The process of acquiring and documenting various facts and figures for the purpose of research is referred to as "data collecting."

a. Conduct surveys by distributing questionnaires to the farmers who have been selected. It is essential to use a method that is comprehensive while simultaneously creating an environment in which respondents feel at ease enough to react in an open and honest manner in order to obtain accurate findings from surveys.

b. It is strongly recommended that in-depth interviews be conducted with a representative sample of farmers in order to acquire a more comprehensive understanding of the issues and difficulties that are experienced by farmers. To get the conversation rolling, try using open-ended inquiries.

(i) **Quantitative Analysis:** When it comes to the collection of survey data, quantitative data can be evaluated through the use of statistical software such as SPSS or Excel. In order to accomplish this, it is possible that it will be necessary to perform calculations such as means, proportions, and correlations in order to detect broad trends and patterns.

(ii) **Qualitative Analysis:** When examining the material obtained from interviews, it is recommended to make use of methods such as thematic analysis and content analysis. The first thing that has to be done is to go through the recorded interviews for concepts and patterns that appear more than once.

If you believe that using GIS software would be beneficial for your research of spatial data, then you should incorporate it. This tactic makes it simpler to recognize recurring patterns in the distribution of farms, the distance between those farms and urban centers, and the paths that are taken to transport goods between the two.

The process of bolstering the reliability and validity of a study's conclusions by merging data from several sources, such as surveys, interviews, and secondary sources, is referred to as "triangulation," and the name "triangulation" is used to characterize this method. The reliability and validity of study results can be improved by the use of the triangulation method.

The goal of this assignment is to create a report that explains the findings of the study in a manner that is both clear and succinct. A overview section, a section on the techniques, a section on the outcomes, and a section on what should be done next should all be included in the report. When illustrating and emphasizing important points, make effective use of visual aids such as charts, graphs, and maps.

This study's objective is to determine whether or not the policies currently being implemented by the government in regard to the agriculture sector and the marketing endeavors associated with it are appropriate and effective. Consider the impact that these potential solutions could have on the challenges faced by small-scale farmers.

Participation of Stakeholders in the Process: Maintain open lines of communication and collaborate with local agricultural authorities, non-governmental organizations (NGOs), and farmer cooperatives in order to gain more knowledge and enhance the existing dataset.

It is necessary to take into consideration any ethical concerns that may surface as a result of conducting this research. Two examples of ethical standards that need to be upheld by your research are obtaining the participants' informed consent and maintaining the confidentiality of their personal information.

4. Results and Discussions

The demographic profile of the participants in this study is presented in Table 1, which reveals that approximately half of the participants were under the age of 20. In addition, 35% of the respondents were into the age range of 20-29 years old, while 16% of them were in the age bracket of 30-39 years old. More than a quarter of the individuals (28%) self-identified as being female, whereas the remaining seventy-two percent (72%) did so as being male.

The following table provides a breakdown of the respondents based on marital status, degree of education, and the number of children in their families. It is clear from the results that 52% of the persons who participated in the poll fall into the category of being unmarried, while just 18% are married. In addition, there were 4% single individuals, 2% people who had been divorced, and 4% people who had never been married.

When asked about their level of education, 37% of respondents claimed that they had never completed elementary school, while 19% of respondents said that they had. In addition, 39% of the population had completed at least one form of post-secondary education, and 24% of the population had completed their secondary education.

According to the statistics, roughly half of the individuals who participated in the survey were from families consisting of five persons or fewer. On the other hand, families with 6-10 members accounted for 26% of all families, while families with 11-15 members accounted for 13% of all families.

Table 1. Personal characteristics of respondents

Criterion	Frequency	Percentage
Age		
<20 years	22	44
20-29 years	16	32
30-39 years	7	14
40-49 years	5	10
Gender		
Male	36	72
Female	14	28
Marital Status		
Single	26	52
Married	17	34
Widow	3	6
Divorced	1	2
Separated	3	6
Highest Level of Education		
No formal Education	19	38
Primary	9	18
Secondary	12	24
Teritiary	10	20
Family Size		
Less than 5	28	56
6-10	13	26
11-15	4	8
16 and above	0	0

Table 2 displays, according to the information that was provided, the responses and opinions of those who participated in the survey. As can be seen in the table, the vast majority of respondents, or eighty percent, are engaged in sugarcane growing. The majority of responders (46%) are corn farmers, while the vast majority (92%) are engaged in maize cultivation. Pearl millet is grown by 56% of respondents, while paddy is grown by 92% of respondents. In contrast, only 44% of those polled cultivate crops that are not vegetables, whereas 68% are active in the cultivation of vegetables.

Table 2. Respondents opinion on produce market by the respondents

S. No.	Produce	Yes	%	No	%
1.	Sugarcane	40	80	10	20
2.	Maize	46	92	4	8
3.	Corn	23	46	27	54
4.	Pearl Millet	28	56	23	46
5.	Paddy	46	92	4	8
6.	Vegetable	34	68	16	32
7.	Others (specify)	22	44	28	56

As can be seen in Table 3, respondents to the study were asked to indicate the type of marketing data that they considered to be the most helpful. 74% of respondents are in need of data on the current market price, as are 64% of them in need of information on accessible loan sources, 40% of respondents are in need of assistance on keeping accurate records, and 28% of respondents are in need of an understanding of how to efficiently budget.

Table 3. Marketing information needed by the respondents

S. No.	Statements	Highly Needed	%	Moderately Needed	%	Not Needed	%
1.	Information on current market price	37	74	11	22	2	4
2.	Access to source of credit	34	64	15	30	3	6
3.	Information on record keeping	20	40	23	46	7	14

4.	Information on profit maximization	22	44	24	48	4	8
5.	Information on budgeting	14	28	20	40	16	32
6.	Information on credit management	9	18	15	30	26	52

5. Conclusion

Agriculture has consistently been Villupuram's most important source of revenue during the course of the city's history, mostly as a result of the region's climatically favorable conditions. The climate, topography, and vegetation of the United States are used to split the country into five distinct agricultural zones. These zones are dry subhumid, subhumid, highly humid, and swamp/flood. Agricultural development is a process that is purposeful and deliberate. The goal of this process is to change an agricultural sector that is plagued by subsistence farming, poor earnings, high populations, and obsolete methods and technology into a business that is competitive and wealthy. Some common definitions of agricultural development include satisfying the food demands of the population, supplying sufficient raw materials for industry, and providing sufficient revenue for farmers to maintain their standard of living. When it comes to rural smallholder farmers, marketing plays an extremely important part in achieving the overarching goals of sustainable agriculture, food security, and the alleviation of poverty. When it comes to marketing their goods, some of the most significant challenges that small-scale farmers face include inadequate access to credit, a lack of storage space, a lack of market information, a lack of financial resources for farming activities, a lack of a well-developed network of village markets, unfavorable producer prices, high perishability of agricultural produce, low customer demand, limited access to transportation infrastructure, low transport capacity, and high transportation expenses. The role that women play in agriculture is shaped by a variety of significant factors at play in the industry. Relevant variables include the size of the farm that is being farmed, the number of workers, the proximity of storage facilities, the quality of the items, and the availability of extension services. As a result, the findings indicate that farmers should organize marketing cooperatives in order to market their products in a coordinated manner. This would allow them to circumvent the difficulties associated with low marketing output per farmer, limited transportation options, and high transportation expenses. If they took this course of action, it would increase both their access to markets with great potential for value addition and their standing in those markets.

Based on the findings of the study, the following recommendations were made:

- Governments ought to establish explicit marketing criteria for agricultural products in order to safeguard farmers against unjust exploitation or financial setbacks. This can be achieved by implementing crop insurance policies, similar to those observed in industrialized nations, which ensure that farmers receive a minimum level of returns.

- The development and upkeep of essential infrastructure, such as roadways, communication networks, and power sources, should prioritize the needs of rural areas.
- Particularly in the months leading up to harvest and planting, governments ought to facilitate the transmission of accurate and up-to-date market data to farmers.
- Education in agricultural marketing is in critical demand, not just in educational institutions but also among agricultural producers themselves.
- It is vital to establish and encourage the deployment of irrigation practices for horticulture crops in order to take advantage of the greater yields per acre that may be attained by irrigation and to relieve pressure on arable land. Irrigation can increase yields by as much as 30 percent per acre.
- It is advised that farmers create new cooperative groups or reactivate ones that have been dormant in the past. This will allow for more effective coordination of the sale of agricultural goods, the provision of farm supplies, and the provision of additional marketing services.

Declarations

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Competing Interests Statement

The authors declare the total absence of conflicts of interest, both during the conduct of the study and during the written drafting of this work.

Consent for Publication

The authors declare that they consented to the publication of this research work.

Authors' Contributions

All the authors took part in literature review, analysis, and manuscript writing.

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